



TITLE: NEEDLE CRICOTHYROTOMY – TLJV PERFORMANCE CRITERIA EMS Policy No. 2549

NEEDLE CRICOTHYROTOMY – TRANSLARYNGEAL JET VENTILATOR (TLJV)

Name: _____ Date: _____ License # _____

Transtracheal catheter ventilation is a temporary emergency procedure to provide oxygenation when airway obstruction cannot be relieved by other methods.

A. Assessment/Treatment Indicators for the unconscious patient:

1. Patient is unconscious and unresponsive.
2. Total airway obstruction following unsuccessful attempts of BLS and ALS obstructed airway procedures.
3. Massive facial trauma in a patient who cannot be intubated.
4. Injury to the trachea/larynx in a patient who cannot be adequately ventilated or intubated by either oral or nasotracheal means.
5. Airway obstruction due to infection.

B. Contraindications: NONE.

C. Potential Complications:

1. With the high pressure used during ventilation and the possibility of air entrapment, may produce a pneumothorax.
2. Hemorrhage may occur at the site of the needle insertion, especially if the thyroid is perforated.
3. Perforation of the esophagus.
4. Subcutaneous or mediastinal emphysema.
5. Usually does not allow enough ventilation to adequately eliminate carbon dioxide.

Equipment:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Translaryngeal jet ventilator with push-button and high-pressure tubing with locking device (Adult) or disposable Bag-Valve device (Pediatric) 2. Endotracheal tubes: 3.0 or 3.5 ET 3. Providone iodine 4. Oxygen supply @ 50 PSI | <ol style="list-style-type: none"> 5. 10 - 12 ga needle for adult, 12 – 14 ga needle for pediatrics 6. Battery powered suction device 7. Yankauer Tonsil Tip Suction Catheter Non-rigid 8. 10 ml syringe 9. End-tidal CO2 device |
|---|---|

Performance Criteria		Pass	Fail
1.	Uses universal precautions.		
2.	States: Indications and contraindications.		
3.	Locates and prepares insertion site at the cricothyroid membrane between the thyroid and cricoid cartilage of larynx.		

Effective: July 1, 2023
Supersedes: January 1, 2012

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Medical Director

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Performance Criteria		Pass	Fail
4.	Place 5 ml of normal saline in the syringe. Attaches the IV catheter to the syringe and inserts the needle midline at a 45° angle with a quick smooth downward motion following the direction of the trachea. Applies negative pressure to the syringe during insertion. Bubbles in the syringe indicate that the needle is in the trachea.		
5.	Advances the catheter over the needle and withdraws the needle and syringe. If using cricothyrotomy cannula, removes obturator. Attaches oxygen delivery device.		
6.	Assesses for hemorrhage or subcutaneous emphysema, which may indicate improper placement.		
7.	Ventilates using TLJV - one (1) second on and three (3) seconds off.		
8.	States if TLJV fails can attach 3.5 ET hub and ventilates with BVM.		
9.	Auscultates lungs while manually holding needle.		
10.	Secures needle hub in place with tape over Benzoin or with other approved device.		
11.	Monitor end-tidal CO ₂ and/or pulse oximetry, and chest expansion.		
12.	Transport immediately to closest hospital for airway management.		
13.	Contact Base Hospital if unable to adequately ventilate patient.		
14.	States: Document needle cricothyrotomy placement on PCR.		

Please provide comments for any item that is marked as failed: _____

Name & Signature of Evaluator

Date

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